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(54) **Entertainment device for small children**

(57) An entertainment device for small children comprises a main body, connecting means for attaching the main body to a child support such as, for example, a high chair, baby car seat, rocker, bouncer, in a position above

the expected location of a child in said child support, signalling means provided in said main body for generating a desired signal, energizing means for energizing the signalling means and control means for controlling the operation of the signalling means.

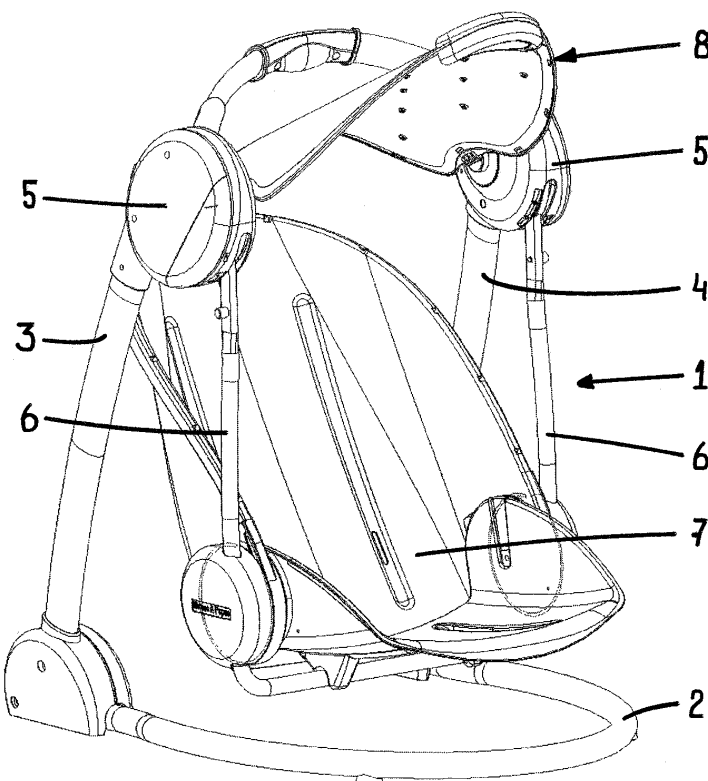


Fig. 1

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Description

[0001] The invention relates to an entertainment device for small children.

[0002] Such entertainment devices come in many shapes. Basically, two types of entertainment devices can be distinguished: active entertainment devices, which a small child will touch while playing with it, and passive entertainment devices which are used to stimulate the senses of a small child without realizing a physical contact with the child. The entertainment device according to the present invention belongs to the second kind.

[0003] It is the object of the present invention to provide a novel entertainment device for small children.

[0004] Thus, in accordance with the present invention, an entertainment device for small children is presented, characterized by a main body, connecting means for attaching the main body to a child support such as, for example, a high chair, baby car seat, rocker, bouncer, stroller, buggy or travel cot, in a position above the expected location of a child in said child support, signalling means provided in said main body for generating a desired signal, energizing means for energizing the signalling means and control means for controlling the operation of the signalling means.

[0005] The entertainment device according to the present invention is meant for use in combination with a child support. A small child sitting or lying in such a child support often becomes restless, and needs soothing. However, in many cases the child will not constantly receive attention from his parents (or other persons looking after the child). The entertainment device according to the present invention can offer such an attention to the child at any desired moment. The signalling means can generate a desired signal which will attract the attention of the child, thus diverting the child. The control means can be used for activating or deactivating the signalling means at any desired moment.

[0006] Because of the position of the main body above the expected location of a child in the child support, the signalling means will be located in the immediate vicinity of the child's head, thus making it very easy to attract the attention of the child, especially a small child.

[0007] The following is noted. Although the indication "child support" primarily intends to indicate devices in which a small child can sit, rest or lie, it also intends to indicate devices extending above a sitting or lying child, such as, for example, a so-called 'baby-gym' which basically is a frame structure beneath which a child can lie and which supports a number of playthings.

[0008] In a preferred embodiment of the entertainment device according to the present invention which is intended to be used in combination with a child support of the type comprising two laterally opposed frame parts, the connecting means comprise two oppositely directed lateral members for cooperation with two complementary shaped counter members of said laterally opposed frame parts for positioning the main body between said laterally

opposed frame parts.

[0009] As a result the entertainment device can be attached in a very simple, yet nevertheless very effective manner to the child support. The child support needs only a very limited amount of specially designed members for allowing the main body of the entertainment device to be attached thereto. It even is conceivable, that the child support is used in its original state, in which original parts thereof function as said counter members. If this is the case, the entertainment device can be used in combination with many different child supports.

[0010] When, in accordance with a preferred embodiment, the lateral members of the main body comprise projections for co-operation with recess-shaped counter members, a very stable positioning of the main body of the entertainment device relative to the child support is obtained.

[0011] Then, in such a case, it is possible that the main body is flexible for temporarily decreasing the distance between the two oppositely directed projections for mounting and dismounting the main body to and from, respectively, the respective child support.

[0012] The flexibility of the main body allows a temporary decrease of the distance between the two oppositely directed projections, such that the main body can be mounted between the opposed frame parts of the child support without the need for further provisions. Moreover, when in its mounted position the main body is not fully relaxed, a certain amount of spring force will be generated maintaining a firm connection between the main body and the child support.

[0013] In yet another embodiment it is possible, that the connecting means allow an adjustment of the position of the main body relative to the child support. As a result, the position of the main body relative to the child support can be adjusted, for example in relation to different positions of a child in the child support or for coping with different body dimensions of children.

[0014] One way to realize such an adjustment is, that the connecting means and the child support co-operate in a ratchet-like manner. However, also other constructional solutions are possible, as will be evident for experts in the field.

[0015] In one preferred embodiment, the signalling means comprise lights. Such lights which are controlled by the control means are very effective in attracting the attention of a small child. Such lights can have many shapes, colours and positions.

[0016] It has to be noted, however, that also other signalling means could be provided, such as speakers, small moving objects or alike.

[0017] In still another embodiment the control means are devised for activating the signalling means according to at least one predetermined sequence. Such an option could be combined with the provision of the signalling means in a predetermined pattern. For example, when lights are provided which are positioned one behind the other along a twisting track, a group of lights moving along

said track can be simulated, just like a moving snake.

[0018] Preferably, the energizing means comprise battery means, thus providing the entertainment device with a stand-alone character. However, also other solutions are conceivable, such as for example a mains connector or solar cells.

[0019] Finally it is preferred, that the main body comprises two body halves detachably attached to each other and defining therebetween a free inner space. Such a free inner space can be used to accommodate, among others, wires connecting the signalling means to the energizing means and control means.

[0020] Hereinafter the invention will be elucidated while referring to the drawing, in which

Fig. 1 shows, perspectively, a child support provided with an embodiment of an entertainment device according to the present invention;

Fig. 2 shows, on a larger scale, the entertainment device illustrated in Fig. 1;

Fig. 3 shows, on a reduced scale, a bottom view of the entertainment device in Fig. 2;

Fig. 4 shows, on a reduced scale, a top view of the entertainment device in Fig. 2;

Fig. 5 shows, on an enlarged scale, a frontal view of the entertainment device in Fig. 2, and

Figs. 6 and 7 show explosion views of the entertainment device in Fig. 2 from above and below, respectively.

[0021] Firstly referring to Fig. 1, a swing-like child support 1 is illustrated. Such a child support 1 is known per se and comprises a base frame part 2 and two opposed lateral frame parts 3,4. Each lateral frame part 3,4 is, with its one end, connected to the base frame part 2 and, at its opposite end, provided with a hinge means 5. Each hinge means 5 hingeably supports an arm 6. Both arms 6 are attached to a baby seat 7. A small child seated in the baby seat 7 can be swung forward and reward by means of this child support 1.

[0022] Between the hinge means 5 an entertainment device 8 is positioned. For a detailed description of this entertainment device 8 reference is made to Figs. 2 until 7.

[0023] Fig. 2 shows the entertainment device 8 on an enlarged scale and detached from the child support 1. The entertainment device comprises a main body 9, connecting means 10 for attaching the main body 9 to the child support 1, signalling means 11, energizing means (not visible) for energizing the signalling means 11 and control means 12 for controlling the operation of the signalling means 11. The control means may comprise, among others, control buttons and control circuitry.

[0024] The connecting means 10 are shaped as projections for co-operation with mating recess-shaped counter members provided in the hinge means 5 of the child support 1 (not illustrated in detail). As illustrated for example in Fig. 5, said projections 10 may comprise pro-

jections 10' or alike for allowing a ratchet-like cooperation between the connecting means 10 and the recess-shaped counter member (thus allowing an adjustment of the position of the main body 9 of the entertainment device 8 relative to the child support 1).

[0025] Fig. 3 shows the entertainment device in a bottom view. It can be seen, that the signalling means 11, which in the present case are lights, are arranged in a predetermined pattern. At the forward end of the main body 9 a receptacle 13 is provided for receiving energizing means, such as batteries, and (part of) the control means 12.

[0026] In Fig. 4 a top plan view of the entertainment device is illustrated, again showing the connecting means 10 projecting from the main body 9, and the receptacle 13. The control means 12 are positioned in and/or on the receptacle 13.

[0027] From Fig. 5, which shows a frontal view of the entertainment device 8, it clearly appears, that the main body 9 comprises two body halves, an upper half 14 and a lower half 15. Between both halves 14 and 15 a free inner space is defined which may be used for housing wires connecting the signalling means 11 to the energizing means and control means 12.

[0028] As illustrated clearly in Fig. 5, the main body is dome-shaped and, when flexible, can be deformed in such a manner that the distance between the connecting means 10 temporarily can be decreased, such as to mount or dismount the main body in or from, respectively, the child support 1.

[0029] Finally, reference is made to Figs. 6 and 7 which show explosion views of the entertainment device from above and below respectively. Clearly illustrated are the upper main body half 14 and lower main body half 15. The lower main body half 15 has a recess 16 in which the receptacle 13 is attached by means not illustrated in detail. The receptacle 13 comprises a removable lid 17 which, when removed, provides access to a battery compartment 18.

[0030] The connection between the upper main body half 14 and lower main body half 15 can be realized in any appropriate manner (screwing, snapping, glueing, etc.). In Figs. 6 and 7 the wires connecting the lights 11 to the control means 12 and battery compartment 18 are not illustrated.

[0031] By means of the control means 12 the lights 11 can be activated in accordance with a predetermined sequence, generating a desired lighting pattern.

[0032] Apart from its entertaining function, the device according to the present invention also can act as a sun-screen because of its canopy-like appearance.

[0033] The invention is not limited to the embodiment described before, which may be varied widely within the scope of the invention as defined by the appending claims.

Claims

1. Entertainment device for small children, **characterized by** a main body, connecting means for attaching the main body to a child support such as, for example, a high chair, baby car seat, rocker, bouncer, in a position above the expected location of a child in said child support, signalling means provided in said main body for generating a desired signal, energizing means for energizing the signalling means and control means for controlling the operation of the signalling means. 5
2. Entertainment device according to claim 1, and intended to be used in combination with a child support of the type comprising two laterally opposed frame parts, wherein the connecting means comprise two oppositely directed lateral members for cooperation with two complementary shaped counter members of said laterally opposed frame parts for positioning the main body between said laterally opposed frame parts. 10 15 20
3. Entertainment device according to claim 2, wherein the lateral members of the main body comprise projections for cooperation with recess-shaped counter members. 25
4. Entertainment device according to claim 3, wherein the main body is flexible for temporarily decreasing the distance between the two oppositely directed projections for mounting and dismounting the main body to and from, respectively, the respective child support. 30 35
5. Entertainment device according to any of the previous claims, wherein the connecting means allow an adjustment of the position of the main body relative to the child support. 40
6. Entertainment device according to claim 5, wherein the connecting means and the child support cooperate in a ratchet-like manner.
7. Entertainment device according to any of the previous claims, wherein the signalling means comprise lights. 45
8. Entertainment device according to any of the previous claims, wherein the control means are devised for activating the signalling means according to at least one predetermined sequence. 50
9. Entertainment device according to any of the previous claims, wherein the energizing means comprise battery means. 55
10. Entertainment device according to any of the previ-

ous claims, wherein the main body comprises two body halves detachably attached to each other and defining therebetween a free inner space.

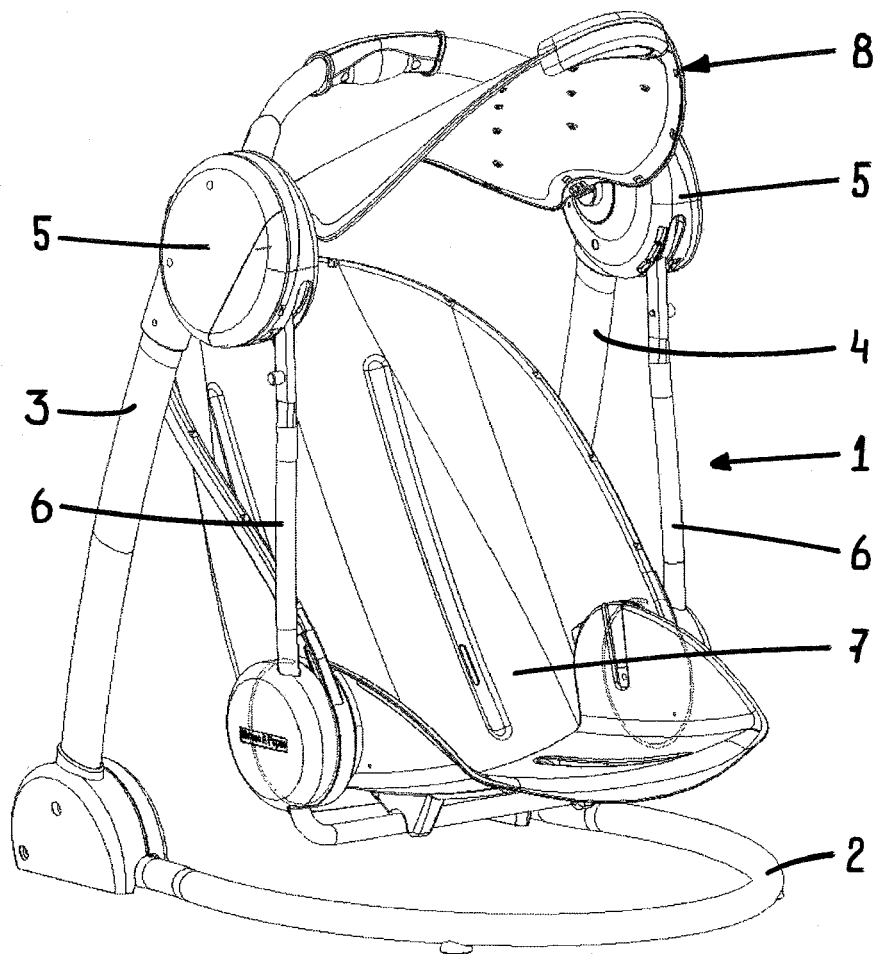


Fig. 1

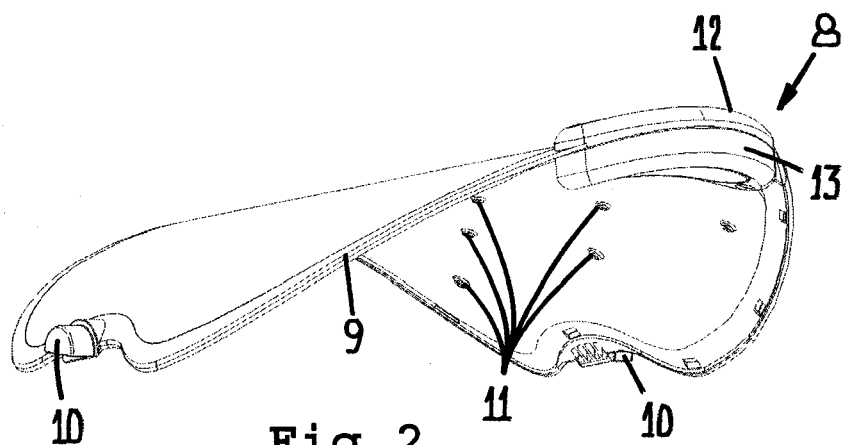


Fig. 2

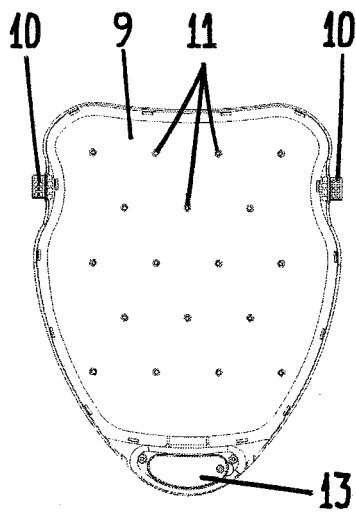


Fig. 3

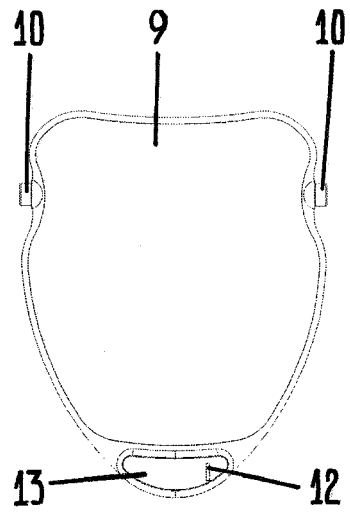


Fig. 4

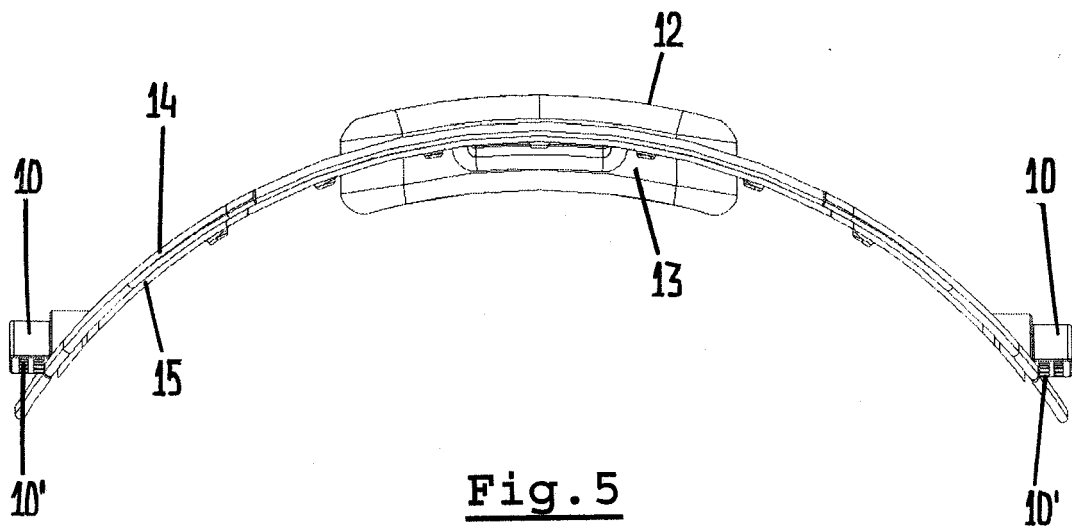
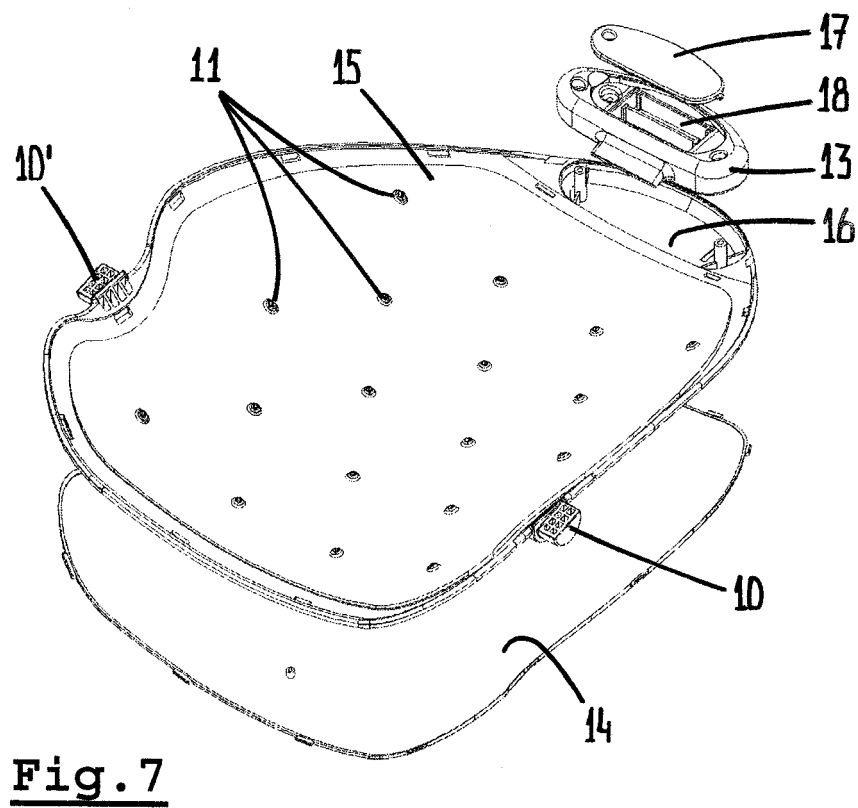
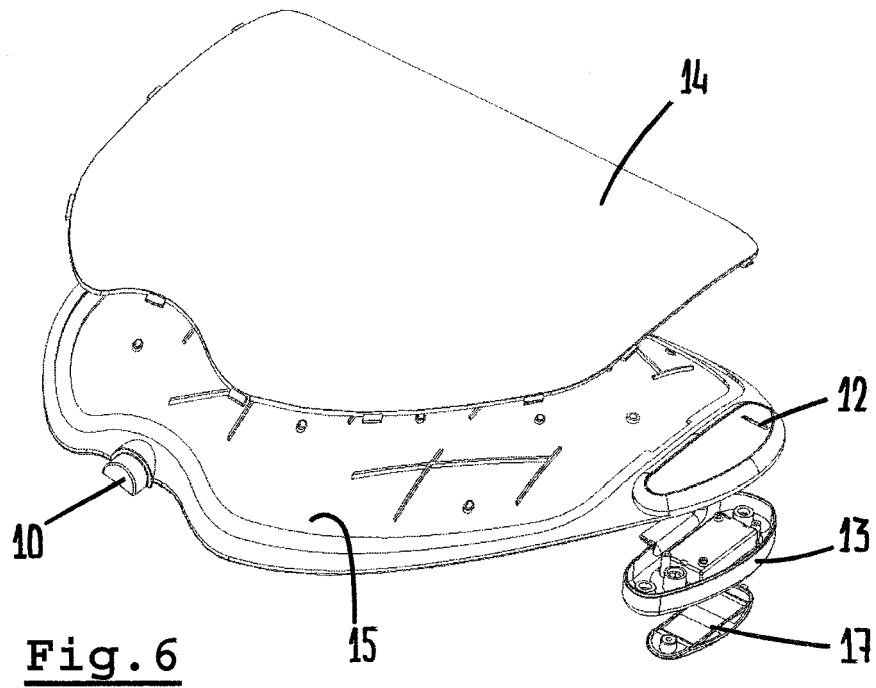


Fig. 5





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EUROPEAN SEARCH REPORT

Application Number
EP 05 10 0035

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Place of search Munich		Date of completion of the search 10 March 2005	Examiner Reichhardt, O
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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